

Reg. No .....

Name .....

18P106

**M.Sc DEGREE END SEMESTER EXAMINATION - NOVEMBER 2018**

**SEMESTER 1 : BOTANY**

**COURSE : 16P1BOTT01 : MICROBIOLOGY AND PHYCOLOGY**

*(For Regular - 2018 Admission & Supplementary - 2016 / 2017 Admissions)*

Time : Three Hours

Max. Marks: 75

**Section A**

**Answer any 8 (2 marks each)**

1. What are photolithoautotrophs?
2. What are the probable factors contribute to heat resistance in endospore?
3. What are the biological significances of chemoorganotrophic heterotrophs?
4. What is the major difference in the classification of algae by F.E. Fritch and G.M. Smith?
5. Give the major highlight of algal classification by R.E. Lee.
6. Discuss the function of heterocysts.
7. Name any two algae that are used in phycoremediation.
8. Give any two common preservatives for algae.
9. What are the various kinds of food spoilage?
10. What are prions?
11. Illustrate the structure of TMV.
12. Write a note on alginic acid.

**(2 x 8 = 16)**

**Section B**

**Answer any 7 (5 marks each)**

13. With the help of suitable diagrams explain the ultra- structure of endospore of bacteria.
14. Explain the peculiarities of Chlamydiae.
15. Explain various habitats of Chlorophyceae.
16. Give an account of the significance of fossil algae.
17. Briefly explain the ecological significance of algae.
18. Briefly explain the method of herbarium preparation for algal specimens.
19. Explain the various types of food preservation techniques.
20. Give a detailed account on disease process by bacteria.
21. What are the distinctive properties of viruses?
22. What is phycoremediation? Give suitable examples.

**(5 x 7 = 35)**

**Section C**

**Answer the following (12 marks each)**

23. Explain and illustrate the ultrastructure of flagellum in bacteria. Add a note on flagellation and mechanism of flagellar movement.

**OR**

24. Give a detailed account on pathogenesis of viral infection with special mention to HIV and HPV.  
25. Describe the plastid structure in different groups of algae.

**OR**

26. Describe alternation of generation in algae. Illustrate your views with examples.

**(12 x 2 = 24)**